of the shell like the Nautili and Ammonites. Persuaded that a careful investigation of the structure of the Nummulites could alone decide respecting the form of the animal which constructed these singular habitations, we set earnestly about it, and after frequently repeated observations and sections, fractions, sawings and grindings, and having examined with the microscope a multitude of Nummulites as hard as quartz or the most compact limestone, we had the good fortune to meet with a number from which we might remove successively the circumvolutions of the spire by means of a kind of cleavage, which has led us to conclude :—

1. That the *Nummulites* were external multispiral shells with enveloping convolutions, and at the same time polythalamian.

2. The sides of these shells were perforated in a similar manner to what is observed in the *Rotalia* and *Nonionina*.

3. It was through these holes that the numerous tentacula or pseudopoda with which the animal was provided were exserted (organs of prehension or locomotion).

4. The septa of the chambers leave a triangular aperture between them and the last-formed convolution of the spire by means of which they all communicate.

5. All the chambers were occupied at the same time by the multisegmented body of the animal.

6. The several segments were connected with one another by a tube or sipho, which at the same time fulfils the office of digestive canal.

7. The animal increased by producing new segments which were added in the same plane to those previously existing. These segments were soon enveloped by the calcareous matter which they secreted, like the mantle of the Mollusca.

8. The inhabitant of the Nummulites was neither a Polyp nor a Medusa, nor an Annelide nor a Cephalopodous mollusk, but one of those long-misunderstood creatures for which D'Orbigny created the name of Foraminifera.—*Comptes Rendus, Oct.* 25, 1847.

Description of the Caligus Strömii. By W. Baird, M.D., F.L.S. &c.

In 1845 I found upon a salmon at Berwick a species of *Caligus* which, at that time, I thought was new. Upon more careful examination I found it approached very near the *Caligus Vespa* of M. Edwards, differing however considerably in size and other more minute distinctions. In the Copenhagen Transactions, vol. x. p. 23, and t. 7. f. 1–6, the celebrated Ström has described and figured a species of *Caligus* under the name of "Laxe luus" or salmon louse, and which he shortly defines "Monoculus thorace abdomineque ovato, cauda lobata." It is evidently the same as the specimens I found upon the salmon of the Tweed, and as Ström is the only author who seems to have noticed it, I have named it after him.

without any apparent aperture and internally a spiral cavity divided by septa into a number of minute chambers, but without a sipho (Règne Animal, iii. p. 22); which is the same thing as saying, that these chambers had no communication with each other nor with the exterior. From our examination of these fossils we have been led to admit the very opposite.

Caligus Strömii—Ström, Kiobenhavn, Selskabs Skrifter, x. 23. t. 7. f. 1–7.

Female. Carapace oval, the frontal plate somewhat prominent, without sucking discs; thorax about the same length as the carapace, narrower at upper extremity, broader at posterior extremity and terminating in two rounded lobes. The horny tubercles on the medium line of the lower portion of thorax above the vulva, large and simple. Abdomen long and narrow, nearly as long as the thorax, terminating in two lobes which give off several short, stout, plumose setæ. The sternal fork is short and simple. The oviferous tubes are long.—Length of whole body (exclusive of tubes) half an inch.

Male. The male is much smaller than the female. The carapace is oval, much larger in proportion to thorax than in female; thorax narrow and posteriorly notched rather than lobed on each side. Abdomen much shorter than in female, terminating setæ of caudal appendages longer and beautifully plumose. About half the size of female.

The *Cal. Vespa* (female) of M. Edwards is only 3 lines long and has the carapace narrow in front and very broad posteriorly, while in this species the carapace is almost an exact oval, and the animal (female) is fully half an inch in length. In *C. Vespa* the horny tubercle at base of thorax is small and setiferous, while in this species it is simple and of considerable size. The Vespa is said by M. Edwards to have been found in the gills of a salmon. This species I found on different parts of the body of the fish; and I have since then received specimens from Dr. Johnston, who found them also on the body of the salmon. M. Edwards does not appear to have ever seen the male.—*From the Transactions of the Berwickshire Naturalists' Club*, vol. ii. p. 259.

Fossil Infusoria in Amber.

In a paper recently read before the Berlin Academy, Prof. Ehrenberg drew attention to the occurrence of fossil Infusoria in amber, a fact of considerable interest connected with the phænomena of the tertiary formation of the earth's surface. The following nine species had already been detected by him in amber :—

Amphora gracilis.	Navicula amphioxys.
Cocconeïs borealis.	Bacillum (tenuis).
Cocconema Cistula?	Pinnularia capitata.
Fragilaria rhabdosoma?	Gastrum.
Navicula affinis.	

Navicula amphioxys is most numerous, and with *Cocconeïs* and *Amphora* together with *Pinnularia Gastrum* form the mass.—W. F.

Obituary.

The Chevalier *Carl Johan Schönherr*, Royal Counsellor of Commerce, Knight Commander of the Royal Swedish Order of Wasa, Knight of the Polar Star, Member of the Royal Society of Stockholm, Honorary Member of the Entomological Societies of London and France, and of numerous learned bodies in Sweden and other

parts of Europe, died at his estate *Sparresäter*, in Sweden, on the 28th March ult. in his 76th year.

From a letter addressed by the Rev. Mr. Carlson, nephew of M. Schönherr and Secretary to the Swedish Legation in London, to J. Walton, Esq., we learn the following particulars respecting his decease:—He was "suddenly attacked by a fit of apoplexy on the 16th of last month (March) at eight o'clock in the evening, when he fell down on the threshold of his outer room just as he was going downstairs to join the family. The physicians did all they could to avert the danger and he got a little better, but there was scarcely any hope, and I have this day received the melancholy intelligence of his death on the 28th ult. at half-past seven o'clock in the morning. This unexpected loss of my dear and venerable relative has filled my heart with sadness, and I am sure you will feel with me, as you were a very dear friend of my late uncle."

It is impossible to speak in too high terms of the entomological productions of the deceased author. Instead of dissipating his talents by devoting them to a variety of subjects, he steadily kept in view one great object, namely the elaboration of the synonymy of the order of Coleoptera. His great work—(for in fact all his publications form but one whole)—the 'Synonymia Insectorum,'—was commenced in 1806. Three volumes successively appeared, in which the original plan was retained, namely that of giving a synonymical list of every known beetle with reference to every work in which it had been described, with the occasional addition of such species as had come to the knowledge of the author; these at first were but few in number. The 'Systema Eleutheratorum' of Fabricius had appeared a few years previously, and that author by his continual travels had made himself acquainted with the contents of the entomological cabinets of England, France and Germany. Moreover at that time the world was otherwise occupied than in collecting insects. The third volume appeared in 1817, but now time and the change of affairs had brought a great influx of novelties from distant regions, and an Appendix of new species appeared in a separate volume at the same time as the third volume.

The three volumes and appendix thus far published completed the Coleoptera as arranged in the 'Systema Eleutheratorum' of Fabricius, so far as page 376 of the second volume of that work, leaving the Rhynchophorous, Xylophagous and Brachelytrous Coleoptera untouched. The attention of Schönherr was accordingly next applied to the first of these groups answering to the Linnæan genus *Curculio*, but here the vast number of species and the modifications which had been introduced by Latreille and Dejean rendered another plan of proceeding necessary; the result of which was the publication of the 'Curculionidum dispositio methodica, seu Prodromus ad synonymiæ Insectorum partem quartam,' 8vo, Leipsic, 1826. This was succeeded in 1833 by the commencement of the herculean task of arranging the synonymy and describing the species of Rhynchophorous beetles, the extent and labour of which may be easily understood when it is stated that it has required eight thick 8vo volumes (containing more than 7000 pages) to complete the work, the last

volume containing a mantissa of new species, and it is only a very few months since we received a second mantissa of new species. Such a work of course required assistance: Gyllenhal, Germar, Boheman, and other entomological authors of the first eminence, gladly laboured in describing many of the new species, their initials being added at the end of each; and so highly was the work esteemed that we believe a grant was made by the King of Sweden to effect its completion. The 'Synonymia Insectorum' therefore forms the "*Monumentum ære perennius*" of C. J. Schönherr.—J. O. W.

METEOROLOGICAL OBSERVATIONS FOR MARCH 1848.

Chiswick.—March 1. Constant rain: barometer very low. 2. Cloudy and damp. 3. Very fine. 4. Hoar-frost: slight haze. 5. Rain. 6. Cloudy: fine: overcast. 7. Foggy: slight haze: clear. 8. Frosty and foggy: overcast: slight rain. 9. Overcast and mild. 10. Rain: fine: cloudy. 11. Boisterous, with heavy showers. 12. Showery. 13. Cloudy and cold: heavy rain at night. 14. Fine: clear and frosty. 15. Overcast. 16, 17. Rain. 18. Foggy: fine. 19. Foggy: fine: showery. 20. Heavy rain. 21. Hazy and damp: cloudy: showery: clear: frosty at night. 22. Cloudless: boisterous, with rain at night. 23, 24. Cloudy and fine. 25. Uniform haze: cloudy and fine. 26. Overcast: slight rain. 27. Foggy: drizzly. 28. Very fine: rain at night. 29. Hazy and damp: fine. 30. Foggy: slight rain: clear. 31. Hazy: very fine: clear at night.

Mean temperature of the month	42°·5
Mean temperature of March 1847	40 ·11
Mean temperature of March for the last twenty years	42 ·8
Average amount of rain in March	1·36 inch.

Boston.—March 1. Cloudy: rain last night. 2. Cloudy: rain P.M. 3. Fine: rain P.M. 4. Fine. 5. Rain. 6—9. Cloudy. 10, 11. Cloudy: rain A.M. 12. Cloudy: rain A.M. and P.M. 13. Fine: rain P.M. 14, 15. Fine. 16. Rain: rain A.M. and P.M. 17. Cloudy: rain A.M. and P.M. 18. Cloudy. 19. Cloudy: rain P.M. 20. Fine. 21. Rain: rain A.M. and P.M. 22. Fine: rain P.M. 23—25. Cloudy. 26. Cloudy: rain P.M. 27. Cloudy: rain A.M. and P.M. 28. Rain: rain A.M. 29. Cloudy: rain A.M. 30. Fine: rain P.M. 31. Rain.

Applegarth Manse, Dumfries-shire.—March 1. Fair, but cloudy and raw. 2, 3. Fair and clear: raw frost A.M. 4. Fair and clear: hard frost A.M.: rain P.M. 5—7. Cloudy, but fair. 8. Fine: wet A.M.: cleared. 9. Rain in the night: cleared P.M. 10. Showers: hail. 11. Frequent showers: hills covered with snow. 12. Clear cold day. 13. Clear cold day: frost A.M.: fine. 14. Frost A.M.: cloudy: rain P.M. 15. Frequent showers. 16. Fair, but chilly. 17. Rain during night: drizzling A.M. 18. Rain early A.M.: fine. 19. Rain and hail: snow P.M. 20. Frost: hail: thaw P.M. 21. Frost: snow on hills: hail. 22. Frost A.M.: heavy rain P.M. 23. Frequent showers. 24. Very fine: warm. 25. Very fine. 26. Rain nearly all day. 27. Very fine. 28. Wet till noon: cleared. 29. Fine: clear: cold. 30. Fine all day: light clouds. 31. Very fine: clear and warm.

Mean temperature of the month	41°·2
Mean temperature of March 1847	42 ·5
Mean temperature of March for twenty-five years	39 ·1
Mean rain in March for twenty years	2·35 inches.
Rain in March 1847	1·27 ,,

Sandwick Manse, Orkney.—March 1. Clear. 2. Clear: cloudy. 3. Clear. 4. Damp. 5. Damp: drops. 6. Damp: cloudy. 7. Cloudy. 8. Showers: clear: aurora. 9. Bright: showers. 10. Clear: hoar frost. 11. Cloudy: showers. 12. Bright: clear. 13. Clear: hoar-frost. 14. Cloudy: rain. 15. Bright: clear: aurora. 16. Showers. 17. Cloudy: showers. 18. Bright: cloudy. 19. Bright: clear: aurora. 20. Snow: clear: aurora. 21. Clear: frost: cloudy. 22. Clear: cloudy. 23. Rain: drops. 24. Clear: cloudy. 25. Bright: cloudy. 26. Rain. 27. Clear: fog. 28. Fog: rain. 29, 30. Bright: cloudy. 31. Clear: cloudy.